# Iowa Department of Natural Resources Title V Operating Permit

Name of Permitted Facility: Cedar Rapids /Linn County Solid Waste

**Agency Site #2** 

Facility Location: 1954 County Home Road Marion, IA 52302

Air Quality Operating Permit Number: 12-TV-006R1

**Expiration Date: June 14, 2022** 

Permit Renewal Application Deadline: December 14, 2021

**EIQ Number: 92-9984** 

Facility File Number: 57-01-130

Responsible Official
Name: Karmin McShane

Title: Director

Mailing Address: 1954 County Home Road Marion, IA 52302

Phone #: 319-377-5290

**Permit Contact Person for the Facility** 

Name: Karmin McShane

Title: Director

Mailing Address: 1954 County Home Road Marion, IA 52302

Phone #: 319-377-5290

This permit is issued in accordance with 567 Iowa Administrative Code Chapter 22, and is issued subject to the terms and conditions contained in this permit.

For the Director of the Department of Natural Resources

Lori Hanson, Supervisor of Air Operating Permits Section

Date

# **Table of Contents**

I. Facility Description and Equipment List4
II. Plant - Wide Conditions5
III. Emission Point Specific Conditions
IV. General Conditions21
G1. Duty to Comply
G2. Permit Expiration
G3. Certification Requirement for Title V Related Documents
G4. Annual Compliance Certification
G5. Semi-Annual Monitoring Report
G6. Annual Fee
G7. Inspection of Premises, Records, Equipment, Methods and Discharges
G8. Duty to Provide Information
G9. General Maintenance and Repair Duties
G10. Record keeping Requirements for Compliance Monitoring
G11. Evidence used in establishing that a violation has or is occurring
G12. Prevention of Accidental Release: Risk Management Plan Notification and
Compliance Certification
G13. Hazardous Release G14. Excess Emissions and Excess Emissions Reporting Requirements
G15. Permit Deviation Reporting Requirements
G16. Notification Requirements for Sources That Become Subject to NSPS and NESHAP
Regulations
G17. Requirements for Making Changes to Emission Sources That Do Not Require Title V
Permit Modification
G18. Duty to Modify a Title V Permit
G19. Duty to Obtain Construction Permits
G20. Asbestos
G21. Open Burning
G22. Acid Rain (Title IV) Emissions Allowances
G23. Stratospheric Ozone and Climate Protection (Title VI) Requirements
G24. Permit Reopening
G25. Permit Shield
G26. Severability
G27. Property Rights
G28. Transferability
G29. Disclaimer
G30. Notification and Reporting Requirements for Stack Tests or Monitor Certification
G31. Prevention of Air Pollution Emergency Episodes
G32. Contacts List

Appendix A: Applicable Federal Requirements
Appendix B: Attachment A to the Landfill Gas Engine Permit (LCPH ATI 6977 / PTO 6667)

# **Abbreviations**

	. actual cubic feet per minute
ATI	. authorization to install
CFR	. Code of Federal Regulation
CE	. control equipment
	. continuous emission monitor
DNR	. Department of Natural Resources
	. degrees Fahrenheit
	emissions inventory questionnaire
EP	
EU	
gph	. gallon per hour
gpm	. gallon per minute
	grains per dry standard cubic foot
	grains per one hundred cubic feet
	. Horizontal discharge
ICA	
	. Iowa Administrative Code
	. Linn County Public Health
	. Linn County Ordinance
	. motor vehicle air conditioner
	. new source performance standard
	. North American Industry Classification System
N/A	
	. parts per million by volume
lb./hr	
	pounds per million British thermal units
PO	
PTO	
	. standard cubic feet per minute
	. Standard Industrial Classification
tph	
tpy	
	. United States Environmental Protection Agency
	. Vertical (without rain cap or with unobstructing rain cap)
<u>Pollutants</u>	
PM	
	particulate matter ten microns or less in diameter
SO <sub>2</sub>	
NO <sub>x</sub>	
CO	volatile organic compound
	carbon monoxide hazardous air pollutant
ПАГ	iiazai uous aii poliutarit

# I. Facility Description and Equipment List

Facility Name: Cedar Rapids/Linn County Solid Waste Agency Site #2

Permit Number: 12-TV-006R1

Facility Description: Waste Management, Landfill (NAICS 562212; SIC 4953)

# **Equipment List**

Emission Point Number	Emission Unit Number	Emission Unit Description	LCPH Permit Number
EP-01	EU-01	Fugitive Landfill Emissions	4305 / 4318
EP-02	EU-01	Landfill Gas Engine	6977 / 6667
EP-03	EU-01	Landfill Flare	5913 / 5650

# **Insignificant Activities Equipment List**

Insignificant Emission Unit Number	Insignificant Emission Unit Description
None	None

[JAK] 4 12-TV-006R1, 3/2/17

# **II. Plant-Wide Conditions**

Facility Name: Cedar Rapids / Linn County Solid Waste Agency Site #2

Permit Number: 12-TV-006R1

Permit conditions are established in accord with 567 Iowa Administrative Code rule 22.108

#### **Permit Duration**

The term of this permit is: Five years Commencing on: June 15, 2017 Ending on: June 14, 2022

Amendments, modifications and reopening of the permit shall be obtained in accordance with 567 lowa Administrative Code rules 22.110 - 22.114. Permits may be suspended, terminated, or revoked as

specified in 567 Iowa Administrative Code rule 22.115.

### **Plant-Wide Emission Limits**

Unless specified otherwise in the Source Specific Conditions, the following limitations and supporting regulations apply to all emission points at this plant:

Opacity (visible emissions): 20 % opacity
Authority for Requirement: LCO 10.7

<u>Sulfur Dioxide (SO<sub>2</sub>):</u> 500 parts per million by volume Authority for Requirement: 567 IAC 23.3(3)"e"

<u>Particulate Matter</u>: No person shall cause or allow the emission of particulate matter from any source in excess of the emission standards specified in this chapter, except as provided in 567 – Chapter 24. For sources constructed, modified or reconstructed after July 21, 1999, the emission of particulate matter from any process shall not exceed an emission standard of 0.1 grain per dry standard cubic foot of exhaust gas, except as provided in 567 – 21.2(455B), 23.1(455B), 23.4(455B) and 567 – Chapter 24. For sources constructed, modified or reconstructed prior to July 21, 1999, the emission of particulate matter from any process shall not exceed the amount determined from Table I, or amount specified in a permit if based on an emission standard of 0.1 grain per standard cubic foot of exhaust gas or established from standards provided in 23.1(455B) and 23.4(455B).

Authority for Requirement: 567 IAC 23.3(2)"a"

<u>Particulate Matter:</u> No person shall permit, cause, suffer or allow the emission of particulate matter into the atmosphere in any one hour from any emission point from any process equipment at a rate in excess of that specified in Table I for the process weight rate allocated to such emission point. In any case, the emission of particulate matter from any process shall not exceed an emission standard of 0.1 grain per dry standard cubic foot of exhaust gas or Table I of this section, whichever would result in the lowest allowable emission rate.

Authority for Requirement: LCO 10.9(1)

[JAK] 5 12-TV-006R1, 3/2/17

<u>Fugitive Dust:</u> Attainment and Unclassified Areas - A person shall take reasonable precautions to prevent particulate matter from becoming airborne in quantities sufficient to cause a nuisance as defined in lowa Code section 657.1 when the person allows, causes or permits any materials to be handled, transported or stored at a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, with the exception of farming operations or dust generated by ordinary travel on unpaved roads. Ordinary travel includes routine traffic and road maintenance activities such as scarifying, compacting, transporting road maintenance surfacing material, and scraping of the unpaved public road surface. All persons, with the above exceptions, shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. The public highway authority shall be responsible for taking corrective action in those cases where said authority has received complaints of or has actual knowledge of dust conditions which require abatement pursuant to this subrule. Reasonable precautions may include, but not be limited to, the following procedures.

- 1. Use, where practical, of water or chemicals for control of dusts in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land.
- 2. Application of suitable materials, such as but not limited to asphalt, oil, water or chemicals on unpaved roads, material stockpiles, race tracks and other surfaces which can give rise to airborne dusts.
- Installation and use of containment or control equipment, to enclose or otherwise limit the emissions
  resulting from the handling and transfer of dusty materials, such as but not limited to grain, fertilizers
  or limestone.
- 4. Covering at all times when in motion, open-bodied vehicles transporting materials likely to give rise to airborne dusts.
- 5. Prompt removal of earth or other material from paved streets or to which earth or other material has been transported by trucking or earth-moving equipment, erosion by water or other means.
- 6. Reducing the speed of vehicles traveling over on-property surfaces as necessary to minimize the generation of airborne dusts.

Authority for Requirement: 567 IAC 23.3(2)"c"

LCO 10.13

# NSPS: 40 CFR 60, Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills

The Permittee shall comply with all applicable requirements of 40 CFR 60 Subpart WWW Standards of Performance for Municipal Solid Waste Landfills. The following requirements are based on this facility being a MSW landfill in which construction, reconstruction, modification was made or the landfill began accepting waste on or after May 30, 1991. The design capacity is greater than 2.5 million megagrams and 2.5 million cubic meters, and the calculated non-methane organic compound (NMOC) emission rate is less than 50 megagrams per year. All the applicable requirements below are from 40 CFR Part 60 Subpart WWW Standards of Performance for Municipal Solid Waste Landfills.

#### §60.752 Standards for air emissions from municipal solid waste landfills

- (b) Each owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, shall either comply with paragraph (b)(2) of this section if the calculated NMOC emission rate is equal to or greater than 50 megagrams or calculate an NMOC emission rate for the landfill using the procedures specified in §60.754. The NMOC emission rate shall be recalculated annually, except as provided in §60.757(b)(1)(ii) of this subpart. The owner or operator of an MSW landfill subject to this subpart with a design capacity greater than or equal to 2.5 million megagrams and 2.5 million cubic meters is subject to part 70 permitting requirements.
- (1) If the calculated NMOC emission rate is less than 50 megagrams per year, the owner or operator shall:
- (i) Submit an annual emission report to the Administrator, except as provided for in §60.757(b)(1)(ii); and

- (ii) Recalculate the NMOC emission rate annually using the procedures specified in §60.754(a)(1) until such time as the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, or the landfill is closed.
- (A) If the NMOC emission rate, upon recalculation required in paragraph (b)(1)(ii) of this section, is equal to or greater than 50 megagrams per year, the owner or operator shall install a collection and control system in compliance with paragraph (b)(2) of this section.
- (B) If the landfill is permanently closed, a closure notification shall be submitted to the Administrator as provided for in §60.757(d) of subpart WWW.

# §60.754 Test methods and procedures

- (a)(1) The landfill owner or operator shall calculate the NMOC emission rate using either the equation provided in paragraph (a)(1)(i) of this section or the equation provided in paragraph (a)(1)(ii) of this section. Both equations may be used if the actual year-to-year solid waste acceptance rate is known, as specified in paragraph (a)(1)(i), for part of the life of the landfill and the actual year-to-year solid waste acceptance rate is unknown, as specified in (a)(1)(ii), for part of the life of the landfill. The values to be used in both equations are 0.05 per year for k, 170 cubic meters per megagram for  $L_0$ , and 4,000 parts per million by volume as hexane for the  $C_{NMOC}$ . For landfills located in geographical areas with a thirty year annual average precipitation of less than 25 inches, as measured at the nearest representative official meteorological site, the k value to be used is 0.02 per year.
- (i) The following equation shall be used if the actual year-to-year solid waste acceptance rate is known.

$$M_{NMOC} = \sum_{i=1}^{n} 2 k L_0 M_i (e^{-k t_i}) (C_{NMOC}) (3.6 \times 10^{-9})$$

where,

 $M_{NMOC}$  = Total NMOC emission rate from the landfill, megagrams per year

K = methane generation rate constant, per year

 $L_0$  = methane generation potential, cubic meters per megagram solid waste

 $M_i$  = mass of solid waste in the i th section, megagrams

 $t_i$  = age of the i th section, years

C<sub>NMOC</sub> = concentration of NMOC, parts per million by volume as hexane

 $3.6 \times 10^{-9} = conversion factor$ 

The mass of nondegradable solid waste may be subtracted from the total mass of solid waste in a particular section of the landfill when calculating the value for Mi if the documentation of the nature and amount of such wastes is maintained.

(ii) The following equation shall be used if the actual year-to-year solid waste acceptance rate is unknown.

$$M_{NMOC} = 2 \, L_0 \, R \, (e^{-k \, c} - \, e^{-k \, t}) \, C_{NMOC} \, (3.6 \, x \, 10^{-9})$$

where.

 $M_{NMOC}$  = mass emission rate of NMOC, megagrams per year

L<sub>0</sub> = methane generation potential, cubic meters per megagram solid waste

R = average annual acceptance rate, megagrams per year

k = methane generation rate constant, year -1

t = age of landfill, years

C<sub>NMOC</sub> = concentration of NMOC, parts per million by volume as hexane

c = time since closure, years. For active landfill c = 0 and  $e^{-kc} = 1$ 

 $3.6 \times 10^{-9} = conversion factor$ 

The mass of nondegradable solid waste may be subtracted from the average annual acceptance rate when calculating a value for R, if documentation provisions of §60.758(d)(2) are followed.

- (2) Tier 1. The owner or operator shall compare the calculated NMOC mass emission rate to the standard of 50 megagrams per year.
- (i) If the NMOC emission rate calculated in paragraph (a)(1) of this section is less than 50 megagrams per year, then the landfill owner shall submit an emission rate report as provided in

[JAK] 7 12-TV-006R1, 3/2/17

§60.757(b)(1), and shall recalculate the NMOC mass emission rate annually as required under §60.752(b)(1).

- (ii) If the calculated NMOC emission rate is equal to or greater than 50 megagrams per year, then the landfill owner shall either comply with §60.752(b)(2), or determine a site-specific NMOC concentration and recalculate the NMOC emission rate using the procedures provided in paragraph (a)(3) of this section.
- (3) Tier 2. The landfill owner or operator shall determine the NMOC concentration using the following sampling procedure. The landfill owner or operator shall install at least two sample probes per hectare of landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator shall collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using Method 25 or 25C of appendix A of appendix A of this part. Method 18 of appendix A of this part may be used to analyze the samples collected by the Method 25 or 25C sampling procedure. Taking composite samples from different probes into a single cylinder is allowed; however, equal sample volumes must be taken from each probe. For each composite, the sampling rate, collection times, beginning and ending cylinder vacuums, or alternative volume measurements must be recorded to verify that composite volumes are equal. Composite sample volumes should not be less than one liter unless evidence can be provided to substantiate the accuracy of smaller volumes. Terminate compositing before the cylinder approaches ambient pressure where measurement accuracy diminishes. If using Method 18, the owner or operator must identify all compounds in the sample and, as a minimum, test for those compounds published in the most recent Compilation of Air Pollutant Emission Factors (AP-42), minus carbon monoxide, hydrogen sulfide, and mercury. As a minimum, the instrument must be calibrated for each of the compounds on the list. Convert the concentration of each Method 18 compound to C<sub>NMOC</sub> as hexane by multiplying by the ration of its carbon atoms divided by six. If more than the required number of samples are taken, all samples must be used in the analysis. The landfill owner or operator must divide the NMOC concentration from Method 25 or 25C of appendix A of this part by six to convert from C<sub>NMOC</sub> as carbon to C<sub>NMOC</sub> as hexane. If the landfill has an active or passive gas removal system in place, Method 25 or 25C samples may be collected from these systems instead of surface probes provided the removal system can be shown to provide sampling as representative as the two sampling probe per hectare requirement. For active collection systems, samples may be collected from the common header pipe before the gas moving or condensate removal equipment. For these systems, a minimum of three samples must be collected from the header pipe.
- (i) The landfill owner or operator shall recalculate the NMOC mass emission rate using the equations provided in paragraph (a)(1)(i) or (a)(1)(ii) of this section and using the average NMOC concentration from the collected samples instead of the default value in the equation provided in paragraph (a)(1) of this section.
- (ii) If the resulting mass emission rate calculated using the site-specific NMOC concentration is equal to or greater than 50 megagrams per year, then the landfill owner or operator shall either comply with §60.752(b)(2), or determine the site-specific methane generation rate constant and recalculate the NMOC emission rate using the site-specific methane generation rate using the procedure specified in paragraph (a)(4) of this section.
- (iii) If the resulting NMOC mass emission rate is less than 50 megagrams per year, the owner or operator shall submit a periodic estimate of the emission rate report as provided in §60.757(b)(1) and retest the site-specific NMOC concentration every 5 years using the methods specified in this section.
- (4) Tier 3. The site-specific methane generation rate constant shall be determined using the procedures provided in Method 2E of appendix A of this part. The landfill owner or operator shall estimate the NMOC mass emission rate using equations in paragraph (a)(1)(i) or (a)(1)(ii) of this section and using a site-specific methane generation rate constant k, and the site-specific NMOC concentration as determined in paragraph (a)(3) of this section instead of the default values provided in paragraph (a)(1) of this section. The landfill owner or operator shall compare the resulting NMOC mass emission rate to the standard of 50 megagrams per year.
- (i) If the NMOC mass emission rate as calculated using the site specific methane generation rate and concentration of NMOC is equal to or greater than 50 megagrams per year, the owner or operator shall comply with §60.752(b)(2).

- (ii) If the NMOC mass emission rate is less than 50 megagrams per year, then the owner or operator shall submit a periodic emission rate report as provided in §60.757(b)(1) and shall recalculate the NMOC mass emission rate annually, as provided in §60.757(b)(1) using the equations in paragraph (a)(1) of this section and using the site specific methane generation rate constant and NMOC concentration obtained in paragraph (a)(3) of this section. The calculation of the methane generation rate constant is performed only once, and the value obtained from this test shall be used in all subsequent annual NMOC emission rate calculations.
- (5) The owner or operator may use other methods to determine the NMOC concentration or a site-specific k as an alternative to the methods required in paragraphs (a)(3) and (a)(4) of this section if the method has been approved by the Administrator.

Frequency - Tier 2 is required to be completed once every 5 years to determine the NMOC concentration (C<sub>NMOC</sub>). Tier 3 is required to be performed only once to determine the methane generation rate constant (k). During the 5-year term of this permit renewal, updated Tier 2 testing is due on or before November 12, 2018.

# §60.757 Reporting requirements

Except as provided in §60.752(b)(2)(i)(B),

- (a) Each owner or operator subject to the requirements of this subpart shall submit an initial design capacity report to the Administrator.
- (1) The initial design capacity report shall fulfill the requirements of the notification of the date construction is commenced as required under §60.7(a)(1) and shall be submitted no later than:
  - (i) June 10, 1996, for landfills that commenced construction, modification, or reconstruction on or after May 30, 1991 but before March 12, 1996 or
- (ii) Ninety days after the date of construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction on or after March 12, 1996.
  - (2) The initial design capacity report shall contain the following information:
- (i) A map or plot of the landfill, providing the size and location of the landfill, and identifying all areas where solid waste may be landfilled according to the provisions of the State, local, or tribal agency responsible for regulating the landfill.
- (ii) The maximum design capacity of the landfill. Where the maximum design capacity is specified in the permit issued by the State, local, or tribal agency responsible for regulating the landfill, a copy of the permit specifying the maximum design capacity may be submitted as part of the report. If the maximum design capacity of the landfill is not specified in the permit, the maximum design capacity shall be calculated using good engineering practices. The calculations shall be provided, along with the relevant parameters as part of the report. The State, Tribal, local agency or Administrator may request other reasonable information as may be necessary to verify the maximum design capacity of the landfill.
- (3) An amended design capacity report shall be submitted to the Administrator providing notification of any increase in the design capacity of the landfill, within 90 days of an increase in the maximum design capacity of the landfill to or above 2.5 million megagrams and 2.5 million cubic meters. This increase in design capacity may result from an increase in the permitted volume of the landfill or an increase in the density as documented in the annual recalculation required in §60.758(f).
- (b) Each owner or operator subject to the requirements of this subpart shall submit an NMOC emission rate report to the Administrator initially and annually thereafter, except as provided for in paragraphs (b)(1)(ii) or (b)(3) of this section. The Administrator may request such additional information as may be necessary to verify the reported NMOC emission rate.
- (1) The NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in §60.754(a) or (b), as applicable.
- (i) The initial NMOC emission rate report may be combined with the initial design capacity report required in paragraph (a) of this section and shall be submitted no later than indicated in paragraphs (b)(1)(i)(A) and (B) of this section. Subsequent NMOC emission rate reports shall be submitted annually thereafter, except as provided for in paragraphs (b)(1)(ii) and (b)(3) of this section.
- (ii) If the estimated NMOC emission rate as reported in the annual report to the Administrator is less than 50 megagrams per year in each of the next 5 consecutive years, the owner or operator may elect to submit an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual

[JAK] 9 12-TV-006R1, 3/2/17

report. This estimate shall include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based shall be provided to the Administrator. This estimate shall be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate shall be submitted to the Administrator. The revised estimate shall cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

- (2) The NMOC emission rate report shall include all the data, calculations, sample reports and measurements used to estimate the annual or 5-year emissions.
- (3) Each owner or operator subject to the requirements of this subpart is exempted from the requirements of paragraphs (b)(1) and (2) of this section, after the installation of a collection and control system in compliance with §60.752(b)(2), during such time as the collection and control system is in operation and in compliance with §60.753 and §60.755.

# §60.758 Recordkeeping requirements

(a) Except as provided in §60.752(b)(2)(i)(B), each owner or operator of an MSW landfill subject to the provisions of §60.752(b) shall keep for at least 5 years up-to date, readily accessible, on-site records of the design capacity report which triggered §60.752(b), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

Authority for Requirement: 40 CFR 60 Subpart WWW

567 IAC 23.1(2)"rrr" LCO 10.9(2)"a"(70)

[JAK] 10 12-TV-006R1, 3/2/17

# **III. Emission Point-Specific Conditions**

Facility Name: Cedar Rapids/Linn County Solid Waste Agency Site #2

Permit Number: 12-TV-006R1

# **Emission Point ID Number: EP-01**

Associated Equipment.

EP	EU	EU Description	Raw Material	Rated Capacity	CE ID	CE Description
01	01	Fugitive Landfill Emissions	Solid Waste	6,410,000 Mg		

# **Applicable Requirements**

# Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

# **Emission Limits.**

EP	Pollutant	Emission Limit(s)	Authority for Requirement
01	Particulate Matter	0.1 gr/dscf	LCO 10.9(1)"a"
01	Opacity	20% <sup>1,2</sup>	LCO 10.7

<sup>&</sup>lt;sup>1</sup> The emission limit is a six (6) minute average.

# **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

### **NSPS and NESHAP Applicability:**

In general, the federal standards of performance for new stationary sources (new source performance standards) shall be applicable as specified in LCO 10.9(2) and 567 IAC 23.1(2). The federal standards for hazardous air pollutants (national emission standards for hazardous air pollutants) shall be applicable as specified in LCO 10.9(3) and 567 IAC 23.1(3). The federal standards for hazardous air pollutants for source categories (national emission standards for hazardous air pollutants for source categories) shall be applicable as specified in LCO 10.9(4) and 567 IAC 23.1(4).

- A. The New Source Performance Standards (NSPS) Subparts A, General Provisions, and WWW, Standards of Performance for Municipal Solid Waste Landfills, shall apply to this source pursuant to LCO 10.9(2)"a"(70) and 567 IAC 23.1(2)"rrr".
- B. The design capacity of this MSW landfill is greater than 2.5 megagrams (Mg) and is greater than 2.5 million cubic meters. NMOC emissions are currently less than 50 Mg per year. Based on this information, at this time the landfill is not subject to NESHAP Subpart AAAA (40 CFR §63.1930 40 CFR §63.1990) National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills.

Authority for Requirement: LCPH ATI 4305 / PTO 4318

# **Operating Limits:**

Operating limits for this emission unit shall be:

A. The owner or operator shall follow all applicable requirements of NSPS Subpart WWW §60.752; Standards of Performance for Municipal Solid Waste Landfills.

[JAK] 11 12-TV-006R1, 3/2/17

<sup>&</sup>lt;sup>2</sup> The observation of visible emissions of air contaminants as defined in LCO 10.2 will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the visible emissions. If visible emissions continue after the corrections, Linn County may require additional proof to demonstrate compliance (e.g., stack testing).

- B. The owner or operator shall apply to modify this construction permit if a gas collection and control system is required to be installed in accordance with §60.752(b).
- C. The capacity of the municipal solid waste (MSW) landfill covered by this permit shall not exceed 6,410,000 Mg. The capacity limit applies to the total amount of solid waste that is, or will be, located in the following areas of the MSW landfill: all closed sections of the landfill (i.e., in-place waste), all open landfill areas or cells that are currently receiving waste, and all future open areas or cells of the MSW landfill. This limit applies to the entire MSW landfill in a contiguous geographical space that is used, or has been used, for the disposal of municipal solid waste. This limit does not preclude the owner or operator from having to comply with any other local, state, or federal permit that limits or defines the design capacity of the landfill.

Authority for Requirement: LCPH ATI 4305 / PTO 4318

# **Operating Condition Monitoring & Recordkeeping:**

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives. Records shall be legible and maintained in an orderly manner. These records shall show the following:

- A. In accordance with §60.758(a), the owner or operator shall keep the following records for at least five years: up-to-date, readily accessible, on-site records of the design capacity report that showed that the landfill has a capacity greater than 2.5 million Mg and 2.5 million cubic meters, the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within four hours. Either paper copy or electronic formats are acceptable.
- B. The owner or operator of the MSW landfill shall maintain the following monthly records:
  - i. The amount of solid waste accepted or received at the MSW landfill in mass (Mg)1.
  - ii. The total amount of solid waste that has been received at the landfill in all open and closed areas of the MSW landfill in mass (Mg)<sup>1</sup>.
- C. Prior to increasing the capacity of this landfill above the permitted limit of 6,410,000 Mg, the owner or operator shall apply to Linn County Air Quality Division to modify this construction permit. An increase in the capacity of the landfill above what is specified in this construction permit is not allowed without the issuance of a modified air construction permit. Note: if there is a partial cell that puts the capacity over 6,410,000 Mg, then the landfill will need to amend the permit prior to starting construction of that cell.
- D. The owner or operator has shown through Tier 2 testing that the landfill's NMOC emissions are less than 50 Mg per year. In accordance with §60.752(b)(1), the owner or operator must do the following:
  - Calculate the NMOC emission rate annually using the procedures specified in §60.754(a) until such time as the calculated NMOC emission rate is equal to or greater than 50 Mg per year, or the landfill is closed;
  - ii. Submit an annual report of NMOC emissions; or
  - iii. Submit an estimate of NMOC emissions for the next 5-year period in lieu of the annual NMOC report in accordance with §60.757(b)(ii).
- E. The NMOC emission rate for the landfill shall be calculated using the procedures specified in §60.754. The NMOC emission rate report shall include all the data, calculations, sample reports, and measurements used to estimate the annual or 5-year emissions.
- F. If the NMOC emissions from the landfill resulting from the Tier 2 testing are equal to or greater than 50 Mg per year, the owner or operator shall either submit a design plan to install a gas collection and control system in accordance with §60.752(b)(2) or shall determine the site-specific methane generation rate constant (k) and shall recalculate the NMOC emission rate using the site-specific methane generation rate constant and the procedures specified in §60.754(a)(4) (i.e., Tier 3). The revised NMOC emission rate report based on the provisions of §60.754(a)(4) shall be submitted within 1 year of the first calculated emission rate exceeding 50 Mg per year.

Authority for Requirement: LCO ATI 4305 / PTO 4318

<sup>&</sup>lt;sup>1</sup> To convert tons to megagrams, multiply by 0.91.

# Emission Point Characteristic:

Emissions are fugitive in nature other than what is captured and controlled by the Landfill Gas Engine (EP-02) and the Landfill Gas Flare (EP-03).

# **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

# **Stack Testing:**

Stack testing is not required at this time.

# **Opacity Monitoring:**

Opacity monitoring is not required at this time.

Agency Approved Operation & Maintenance Plan Required?

Yes □ No ☑

Facility Maintained Operation & Maintenance Plan Required?

Yes □ No ☑

Compliance Assurance Monitoring (CAM) Plan Required?

Yes □ No ☑

Authority for Requirement: 567 IAC 22.108(3)

[JAK] 13 12-TV-006R1, 3/2/17

# **Emission Point ID Number: EP-02**

**Associated Equipment.** 

EP	EU	EU Description	Fuel	Rated Capacity	CE ID	CE Description
02	01	Landfill Gas Engine	Landfill Gas	2,242 HP		

# **Applicable Requirements**

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

# **Emission Limits.**

EP	Pollutant	Emission Limit(s)	Authority for Requirement
	Opacity	20%	LCO 10.7
	PM	0.6 lb/MMBtu	LCO 10.8(2)"a"
	SO <sub>2</sub>	500 ppm <sub>v</sub>	LCO 10.12(2)
	302	200 ppm <sub>√</sub>	LCPH ATI 6977 / PTO 6667
			40 CFR §60.4233(e)
	NOx	2.0 g/hp-hr or 150 ppmvd at 15% O <sub>2</sub>	567 IAC 23.1(2)"zzz"
02			LCO 10.9(2)"78"
02			40 CFR §60.4233(e)
	VOC	1.0 g/hp-hr or 80 ppmvd at 15% O <sub>2</sub>	567 IAC 23.1(2)"zzz"
			LCO 10.9(2)"78"
			40 CFR §60.4233(e)
	CO	5.0 g/hp-hr or 610 ppmvd at 15% O <sub>2</sub>	567 IAC 23.1(2)"zzz"
			LCO 10.9(2)"78"
	Formaldehyde	9.38 tpy	LCPH ATI 6977 / PTO 6667

# **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

### **Federal Standards:**

# A. New Source Performance Standards (NSPS):

The following subparts apply to the emission unit(s) in this permit:

EU ID	Subpart Title		Туре	Local Reference (LCCO)	Federal Reference (40 CFR)
	Α	General Conditions	NA	10.9(2)	§60.1 – §60.19
02	JJJJ	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines	Non- certified > 500 hp	10.9(2)"a"(78)	§60.4230 – §60.4248

NOTE: The absence of the inclusion of any NSPS requirements as part of this permit does not relieve the owner or operator from any obligation to comply with all applicable NSPS conditions.

14 [JAK] 12-TV-006R1, 3/2/17 B. <u>National Emission Standards for Hazardous Air Pollutants (NESHAP):</u>
The following subparts apply to this emission unit:

EU ID	Subpart	Title	Туре	Local Reference (LCCO)	Federal Reference (40 CFR)
02	ZZZZ	Stationary Reciprocating Internal Combustion Engines	Subject to NSPS JJJJ	10.9(4)"zzzz"	§63.6580 – §63.6675

NOTE: The absence of the inclusion of any NESHAP requirements as part of this permit does not relieve the owner or operator from any obligation to comply with all applicable NESHAP conditions.

Authority for Requirement: LCPH ATI 6977 / PTO 6667

# Operating Requirements with Associated Monitoring and Recordkeeping:

Unless specified by a federal regulation, all records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Department. Records shall be legible and maintained in an orderly manner. The operating requirements and associated recordkeeping for this permit shall be:

- A. The landfill gas engine (EP002) shall be maintained according to the manufacturer's specifications and good operating practices. The owner or operator shall record the date and description of all maintenance performed on the equipment.
- B. The owner or operator shall complete annual testing of the landfill gas for Total Reduced Sulfur (TRS). To demonstrate compliance with the emission limit established in Condition 1 [of LCPH ATI 6977 / PTO 6667], the owner or operator shall assume 100% conversion of sulfur to SO<sub>2</sub>.
- C. The following operating requirements are based on the December 3, 2015 stack test results, which were approved by the Department on May 19, 2016. The Department will use periodic compliance demonstration results (as required by Condition 2 [of LCPH ATI 6977 / PTO 6667]) to periodically update the formaldehyde emission factor, which will in turn be used to update the total methane that can be combusted in the landfill gas engine on a 12-month rolling basis. The owner or operator shall maintain documentation of the emission factors used to calculate formaldehyde emissions from the landfill gas engine. [Appendix B] outlines the methodology used by the Department to determine the updated emission factor and updated 12-month rolling total limits for methane combusted.
  - i. Formaldehyde emissions from the landfill gas engine (EP002) shall be limited to 9.38 tons per year. The owner or operator shall calculate and maintain records of the monthly and 12-month rolling formaldehyde emission totals using an emission factor of 0.189 lb/MMBtu, a heat content for methane (CH<sub>4</sub>) of 1,011 Btu/ft³, the average monthly methane content (in percent), and the monthly total landfill gas combusted in the landfill gas engine, to be completed within seven (7) calendar days of the end of each calendar month. If the 12-month rolling total emissions exceeds 7.50 tons (80% of the emission limit), the owner or operator shall maintain daily records for total formaldehyde emissions. The owner or operator may use the monthly average for the previous days not calculated on a daily basis. Daily calculations for formaldehyde shall continue until the 12-month rolling total emissions drop below 7.50 tons on the last day of a month. Monthly calculations for formaldehyde will then begin the following month.
- D. The owner or operator shall meet the applicable General Provisions of NSPS Subpart A (40 CFR §60.1 through §60.19), as indicated in 40 CFR §60.4246, to comply with LCO 10.9(2)"a"(78).
- E. The owner or operator shall meet the Emission Standards for Owners and Operators of NSPS Subpart JJJJ (40 CFR §60.4230 through §60.4248) to comply with LCO 10.9(2)"a"(78).
- F. The owner or operator shall complete all notifications, reporting, and recordkeeping requirements of NSPS Subpart JJJJ, per 40 CFR §60.4245.

Authority for Requirement: LCPH ATI 6977 / PTO 6667

[JAK] 15 12-TV-006R1, 3/2/17

#### **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

EP	LCPH ATI / PTO	Stack Height (feet, above ground)	Discharge Style	Stack Opening (inches, dia.)	Exhaust Temp. (°F)	Exhaust Flowrate (scfm)
02	6977 / 6667	22	Vertical, unobstructed	16	915	6,800 to 10,000

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Authority for Requirement: LCPH ATI 6977 / PTO 6667

# **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

# Stack Testing:

Pollutant – Total Reduced Sulfur Influent Gas Test to be Completed by – Annually Test Method – EPA Method TO-16B Authority for Requirement: 567 IAC 22.108(3)

Pollutant - Nitrogen Oxides (NO<sub>x</sub>)

Stack test to be Completed by – every 8,760 hours of engine operation, or every 3 years, whichever comes first (NSPS Subpart JJJJ, 40 CFR §60.4243(b)(2)(ii) and §60.4244)

Test Method – 40 CFR 60, Appendix A, Method 7E

Authority for Requirement: 567 IAC 22.108(3)

Pollutant – Volatile Organic Compounds (VOC)

Stack test to be Completed by – every 8,760 hours of engine operation, or every 3 years, whichever comes first (NSPS Subpart JJJJ, 40 CFR §60.4243(b)(2)(ii) and §60.4244)

Test Method – 40 CFR 63, Appendix A, Method 320 or 40 CFR 60, Appendix A, Method 18 Authority for Requirement: 567 IAC 22.108(3)

Pollutant - Carbon Monoxide (CO)

Stack test to be Completed by – every 8,760 hours of engine operation, or every 3 years, whichever comes first (NSPS Subpart JJJJ, 40 CFR §60.4243(b)(2)(ii) and §60.4244)

Test Method – 40 CFR 60, Appendix A, Method 10 Authority for Requirement: 567 IAC 22.108(3)

Pollutant – Formaldehyde (CH<sub>2</sub>O)

Stack test to be Completed by – in conjunction with required NO<sub>x</sub>, VOC, and CO testing required by NSPS Subpart JJJJ.

Test Method – 40 CFR, Appendix A, Method 18 Authority for Requirement: 567 IAC 22.108(3)

# **Opacity Monitoring:**

The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near normal operations and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that

[JAK] 16 12-TV-006R1, 3/2/17

no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required.

If an opacity >20% is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

Agency Approved Operation & Maintenance Plan Required?	Yes ☐ No 🏻
Facility Maintained Operation & Maintenance Plan Required?	Yes ⊠ No □
Compliance Assurance Monitoring (CAM) Plan Required?	Yes □ No ⊠

Authority for Requirement: 567 IAC 22.108(3)

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six (6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution controls that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

# **Emission Point ID Number: EP-03**

**Associated Equipment.** 

EP	EU	EU Description	Raw Material / Fuel	Rated Capacity	CE ID	CE Description
03	01	Landfill Gas Flare	Landfill Gas	2000 scfm	03	Flare

# **Applicable Requirements**

# Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

The emissions from this emission point shall not exceed the levels specified below.

#### **Emission Limits.**

EP	Pollutant	Emission Limit(s)	Authority for Requirement
	Opacity	20% <sup>(1)</sup>	LCO 10.7
03	PM	0.1 gr/dscf	LCO 10.9(1)"a"
	SO <sub>2</sub>	500 ppmv	LCO 10.12(2)

<sup>&</sup>lt;sup>1</sup> An exceedance of no visible emissions will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. If exceedances continue after the corrections, Linn County may require additional proof to demonstrate compliance (e.g., stack testing). A Method 22 would need to be conducted.

# **Operational Limits & Requirements**

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

#### **Control Device:**

A flare shall be installed to control VOC, H<sub>2</sub>S, and VHAP emissions. The control equipment shall be maintained properly. All appropriate probes, monitors and gauges needed to measure the parameters outlined in "Operating Condition Monitoring and Recordkeeping" shall be installed, maintained and operating during the operation of the emission unit and control device at all times.

Authority for Requirement: LCPH ATI 5913 / PTO 5650

# **NSPS and NESHAP Applicability:**

In general, the federal standards of performance for new stationary sources (new source performance standards) shall be applicable as specified in LCO 10.9(2) and 567 IAC 23.1(2). The federal standards for hazardous air pollutants (national emission standards for hazardous air pollutants) shall be applicable as specified in LCO 10.9(3) and 567 IAC 23.1(3). The federal standards for hazardous air pollutants for source categories (national emission standards for hazardous air pollutants for source categories) shall be applicable as specified in LCO 10.9(4) and 567 IAC 23.1(4).

A. The New Source Performance Standards (NSPS) Subpart A, General Provisions and Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills shall apply to this municipal solid waste landfill pursuant to LCCO 10.9(2)"a"(70) and 567 IAC 23.1(2)"rrr".

Authority for Requirement: LCPH ATI 5913 / PTO 5650

B. The facility is of the source category subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart AAAA (Municipal Solid Waste Landfills); however, the Non-Methane Organic Compound (NMOC) emissions are less than 50 megagrams (Mg) per year, per 40 CFR §63.1935(a)(3) and is not expected to exceed 50 Mg per year prior to 2022.<sup>1</sup>

[JAK] 18 12-TV-006R1, 3/2/17

<sup>&</sup>lt;sup>1</sup> Note that LCPH ATI 5913 / PTO 5650 incorrectly identifies the landfill gas flare (EP-003) as being subject to NESHAP Subpart AAAA. The most recent Tier 2 Report was submitted by the Cedar Rapids Linn County Solid Waste Agency Site #2 on March 17, 2017 and estimated a 2017 NMOC rate of 23.36 Mg per year.

Authority for Requirement: 40 CFR §63.1935(a)(3)

# **Operating Limits:**

The owner or operator of this equipment shall comply with the operational limits and requirements listed below:

A. Maintain the flare in accordance with the manufacturer specifications and good operating practices.

Authority for Requirement: LCPH ATI 5913 / PTO 5650

# **Operating Condition Monitoring and Recordkeeping:**

All records as required by this permit shall be kept on-site for a minimum of five (5) years and shall be available for inspection by the Linn County Air Quality Division and other federal or state air pollution regulatory agencies and their authorized representatives. Records shall be legible and maintained in an orderly manner.

- A. The owner or operator shall record hours of operation of the flare on a monthly basis.
- B. The owner or operator shall record all maintenance performed on the flare.

Authority for Requirement: LCPH ATI 5913 / PTO 5650

# **Emission Point Characteristics**

The emission point shall conform to the specifications listed below.

EP	LCPH ATI / PTO	Stack Height (feet, above ground)	Discharge Style	Stack Opening (inches, dia.)	Exhaust Temp. (°F)	Exhaust Flowrate (scfm)
03	5913 / 5650	35	Vertical, unobstructed	12	1,200	2,000

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator shall submit a request to the Department within thirty (30) days of the discovery to determine if a permit amendment is required or submit a permit application requesting to amend the permit.

Authority for Requirement: LCPH ATI 5913 / PTO 5650

# **Monitoring Requirements**

The owner/operator of this equipment shall comply with the monitoring requirements listed below.

#### Stack Testing:

Stack testing is not required at this time. Total Reduced Sulfur testing completed as part of the landfill gas engine (EP-02) local construction permit (LCPH ATI 6977 / PTO 6667) will be used to demonstrate compliance with the landfill gas flare (EP-03) sulfur emissions.

# **Opacity Monitoring:**

The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. Opacity shall be observed to ensure that no visible emissions occur during the material handling operation of the unit. If visible emissions are observed corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If corrective action does not return the observation to no visible emissions, then a Method 9 observation will be required.

[JAK] 19 12-TV-006R1, 3/2/17

If an opacity >20% is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

Authority for Requirement: 567 IAC 22.108(14)

Agency Approved Operation & Maintenance Plan Required?	Yes ☐ No ⊠
Facility Maintained Operation & Maintenance Plan Required?	Yes ⊠ No □
Compliance Assurance Monitoring (CAM) Plan Required?	Yes ☐ No ⊠

Authority for Requirement: 567 IAC 22.108(3)

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six (6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution controls that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)

#### IV. General Conditions

This permit is issued under the authority of the Iowa Code subsection 455B.133(8) and in accordance with 567 Iowa Administrative Code chapter 22.

# **G1. Duty to Comply**

- 1. The permittee must comply with all conditions of the Title V permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. 567 IAC 22.108(9)"a"
- 2. Any compliance schedule shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based. 567 IAC 22.105 (2)"h"(3)
- 3. Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions shall be enforceable by the administrator and are incorporated into this permit. 567 IAC 22.108 (1)"b"
- 4. Unless specified as either "state enforceable only" or "local program enforceable only", all terms and conditions in the permit, including provisions to limit a source's potential to emit, are enforceable by the administrator and citizens under the Act. 567 IAC 22.108 (14)
- 5. It shall not be a defense for a permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. 567 IAC 22.108 (9)"b"
- 6. For applicable requirements with which the permittee is in compliance, the permittee shall continue to comply with such requirements. For applicable requirements that will become effective during the permit term, the permittee shall meet such requirements on a timely basis. 567 IAC 22.108(15)"c"

#### **G2. Permit Expiration**

- 1. Except as provided in rule 567—22.104(455B), permit expiration terminates a source's right to operate unless a timely and complete application for renewal has been submitted in accordance with rule 567—22.105(455B). 567 IAC 22.116(2)
- 2. To be considered timely, the owner, operator, or designated representative (where applicable) of each source required to obtain a Title V permit shall submit on forms or electronic format specified by the Department to the Air Quality Bureau, Iowa Department of Natural Resources, Air Quality Bureau, 7900 Hickman Rd, Suite #1, Windsor Heights, Iowa 50324, two copies (three if your facility is located in Linn or Polk county) of a complete permit application, at least 6 months but not more than 18 months prior to the date of permit expiration. An additional copy must also be sent to U.S. EPA Region VII, Attention: Chief of Air Permits, 11201 Renner Blvd., Lenexa, KS 66219. Additional copies to local programs or EPA are not required for application materials submitted through the electronic format specified by the Department. The application must include all emission points, emission units, air pollution control equipment, and monitoring devices at the facility. All emissions generating activities, including fugitive emissions, must be included. The definition of a complete application is as indicated in 567 IAC 22.105(2). 567 IAC 22.105

### G3. Certification Requirement for Title V Related Documents

Any application, report, compliance certification or other document submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. All certifications shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. 567 IAC 22.107 (4)

# **G4.** Annual Compliance Certification

By March 31 of each year, the permittee shall submit compliance certifications for the previous calendar year. The certifications shall include descriptions of means to monitor the compliance status of all emissions sources including emissions limitations, standards, and work practices in accordance with applicable requirements. The certification for a source shall include the identification of each term or condition of the permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with all applicable department rules. For sources determined not to be in compliance at the time of compliance certification, a compliance schedule shall be submitted which provides for periodic progress reports, dates for achieving activities, milestones, and an explanation of why any dates were missed and preventive or corrective measures. The compliance

[JAK] 21 12-TV-006R1, 3/2/17

certification shall be submitted to the administrator, director, and the appropriate DNR Field office. 567 IAC 22.108 (15)"e"

# **G5. Semi-Annual Monitoring Report**

By March 31 and September 30 of each year, the permittee shall submit a report of any monitoring required under this permit for the 6 month periods of July 1 to December 31 and January 1 to June 30, respectively. All instances of deviations from permit requirements must be clearly identified in these reports, and the report must be signed by a responsible official, consistent with 567 IAC 22.107(4). The semi-annual monitoring report shall be submitted to the director and the appropriate DNR Field office. 567 IAC 22.108 (5)

#### **G6.** Annual Fee

- 1. The permittee is required under subrule 567 IAC 22.106 to pay an annual fee based on the total tons of actual emissions of each regulated air pollutant. Beginning July 1, 1996, Title V operating permit fees will be paid on July 1 of each year. The fee shall be based on emissions for the previous calendar year.
- 2. The fee amount shall be calculated based on the first 4,000 tons of each regulated air pollutant emitted each year. The fee to be charged per ton of pollutant will be available from the department by June 1 of each year. The Responsible Official will be advised of any change in the annual fee per ton of pollutant.
- 3. The following forms shall be submitted annually by March 31 documenting actual emissions for the previous calendar year.
  - a. Form 1.0 "Facility Identification";
  - b. Form 4.0 "Emissions unit-actual operations and emissions" for each emission unit;
  - c. Form 5.0 "Title V annual emissions summary/fee"; and
  - d. Part 3 "Application certification."
- 4. The fee shall be submitted annually by July 1. The fee shall be submitted with the following forms:
  - a. Form 1.0 "Facility Identification";
  - b. Form 5.0 "Title V annual emissions summary/fee";
  - c. Part 3 "Application certification."
- 5. If there are any changes to the emission calculation form, the department shall make revised forms available to the public by January 1. If revised forms are not available by January 1, forms from the previous year may be used and the year of emissions documented changed. The department shall calculate the total statewide Title V emissions for the prior calendar year and make this information available to the public no later than April 30 of each year.
- 6. Phase I acid rain affected units under section 404 of the Act shall not be required to pay a fee for emissions which occur during the years 1993 through 1999 inclusive.
- 7. The fee for a portable emissions unit or stationary source which operates both in lowa and out of state shall be calculated only for emissions from the source while operating in lowa.
- 8. Failure to pay the appropriate Title V fee represents cause for revocation of the Title V permit as indicated in 567 IAC 22.115(1)"d".

# G7. Inspection of Premises, Records, Equipment, Methods and Discharges

Upon presentation of proper credentials and any other documents as may be required by law, the permittee shall allow the director or the director's authorized representative to:

- 1. Enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
- 2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
- 3. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
- 4. Sample or monitor, at reasonable times, substances or parameters for the purpose of ensuring compliance with the permit or other applicable requirements. 567 IAC 22.108 (15)"b"

# **G8. Duty to Provide Information**

The permittee shall furnish to the director, within a reasonable time, any information that the director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the director copies of records required to be kept by the permit, or for information claimed to be

[JAK] 22 12-TV-006R1, 3/2/17

confidential, the permittee shall furnish such records directly to the administrator of EPA along with a claim of confidentiality. 567 IAC 22.108 (9)"e"

# **G9.** General Maintenance and Repair Duties

The owner or operator of any air emission source or control equipment shall:

- 1. Maintain and operate the equipment or control equipment at all times in a manner consistent with good practice for minimizing emissions.
- 2. Remedy any cause of excess emissions in an expeditious manner.
- 3. Minimize the amount and duration of any excess emission to the maximum extent possible during periods of such emissions. These measures may include but not be limited to the use of clean fuels, production cutbacks, or the use of alternate process units or, in the case of utilities, purchase of electrical power until repairs are completed.
- 4. Schedule, at a minimum, routine maintenance of equipment or control equipment during periods of process shutdowns to the maximum extent possible. 567 IAC 24.2(1)

# G10. Recordkeeping Requirements for Compliance Monitoring

- 1. In addition to any source specific recordkeeping requirements contained in this permit, the permittee shall maintain the following compliance monitoring records, where applicable:
  - a. The date, place and time of sampling or measurements
  - b. The date the analyses were performed.
  - c. The company or entity that performed the analyses.
  - d. The analytical techniques or methods used.
  - e. The results of such analyses; and
  - f. The operating conditions as existing at the time of sampling or measurement.
  - g. The records of quality assurance for continuous compliance monitoring systems (including but not limited to quality control activities, audits and calibration drifts.)
- 2. The permittee shall retain records of all required compliance monitoring data and support information for a period of at least 5 years from the date of compliance monitoring sample, measurement report or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous compliance monitoring, and copies of all reports required by the permit.
- 3. For any source which in its application identified reasonably anticipated alternative operating scenarios, the permittee shall:
  - a. Comply with all terms and conditions of this permit specific to each alternative scenario.
  - b. Maintain a log at the permitted facility of the scenario under which it is operating.
  - c. Consider the permit shield, if provided in this permit, to extend to all terms and conditions under each operating scenario. 567 IAC 22.108(4), 567 IAC 22.108(12)

# G11. Evidence used in establishing that a violation has or is occurring.

Notwithstanding any other provisions of these rules, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions herein.

- 1. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at a source:
  - a. A monitoring method approved for the source and incorporated in an operating permit pursuant to 567 Chapter 22;
  - b. Compliance test methods specified in 567 Chapter 25; or
  - c. Testing or monitoring methods approved for the source in a construction permit issued pursuant to 567 Chapter 22.
- 2. The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
  - a. Any monitoring or testing methods provided in these rules; or
  - b. Other testing, monitoring, or information gathering methods that produce information comparable to that produced by any method in subrule 21.5(1) or this subrule. 567 IAC 21.5(1)-567 IAC 21.5(2)

# G12. Prevention of Accidental Release: Risk Management Plan Notification and Compliance Certification

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Act, the permittee shall notify the department of this requirement. The plan shall be filed with all

[JAK] 23 12-TV-006R1, 3/2/17

appropriate authorities by the deadline specified by EPA. A certification that this risk management plan is being properly implemented shall be included in the annual compliance certification of this permit. 567 IAC 22.108(6)

#### G13. Hazardous Release

The permittee must report any situation involving the actual, imminent, or probable release of a hazardous substance into the atmosphere which, because of the quantity, strength and toxicity of the substance, creates an immediate or potential danger to the public health, safety or to the environment. A verbal report shall be made to the department at (515) 281-8694 and to the local police department or the office of the sheriff of the affected county as soon as possible but not later than six hours after the discovery or onset of the condition. This verbal report must be followed up with a written report as indicated in 567 IAC 131.2(2). 567 IAC Chapter 131-State Only

# G14. Excess Emissions and Excess Emissions Reporting Requirements

1. Excess Emissions. Excess emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if the startup, shutdown or cleaning is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Cleaning of control equipment which does not require the shutdown of the process equipment shall be limited to one sixminute period per one-hour period. An incident of excess emission (other than an incident during startup, shutdown or cleaning of control equipment) is a violation. If the owner or operator of a source maintains that the incident of excess emission was due to a malfunction, the owner or operator must show that the conditions which caused the incident of excess emission were not preventable by reasonable maintenance and control measures. Determination of any subsequent enforcement action will be made following review of this report. If excess emissions are occurring, either the control equipment causing the excess emission shall be repaired in an expeditious manner or the process generating the emissions shall be shutdown within a reasonable period of time. An expeditious manner is the time necessary to determine the cause of the excess emissions and to correct it within a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment. A variance from this subrule may be available as provided for in Iowa Code section 455B.143. In the case of an electric utility, a reasonable period of time is eight hours plus the period of time until comparable generating capacity is available to meet consumer demand with the affected unit out of service, unless, the director shall, upon investigation, reasonably determine that continued operation constitutes an unjustifiable environmental hazard and issue an order that such operation is not in the public interest and require a process shutdown to commence immediately.

# 2. Excess Emissions Reporting

- a. Initial Reporting of Excess Emissions. An incident of excess emission (other than an incident of excess emission during a period of startup, shutdown, or cleaning) shall be reported to the appropriate field office of the department within eight hours of, or at the start of the first working day following the onset of the incident. The reporting exemption for an incident of excess emission during startup, shutdown or cleaning does not relieve the owner or operator of a source with continuous monitoring equipment of the obligation of submitting reports required in 567-subrule 25.1(6). An initial report of excess emission is not required for a source with operational continuous monitoring equipment (as specified in 567-subrule 25.1(1)) if the incident of excess emission continues for less than 30 minutes and does not exceed the applicable emission standard by more than 10 percent or the applicable visible emission standard by more than 10 percent opacity. The initial report may be made by electronic mail (E-mail), in person, or by telephone and shall include as a minimum the following:
  - i. The identity of the equipment or source operation from which the excess emission originated and the associated stack or emission point.
  - ii. The estimated quantity of the excess emission.
  - iii. The time and expected duration of the excess emission.
  - iv. The cause of the excess emission.
  - v. The steps being taken to remedy the excess emission.
  - vi. The steps being taken to limit the excess emission in the interim period.

- b. Written Reporting of Excess Emissions. A written report of an incident of excess emission shall be submitted as a follow-up to all required initial reports to the department within seven days of the onset of the upset condition, and shall include as a minimum the following:
  - i. The identity of the equipment or source operation point from which the excess emission originated and the associated stack or emission point.
  - ii. The estimated quantity of the excess emission.
  - iii. The time and duration of the excess emission.
  - iv. The cause of the excess emission.
  - v. The steps that were taken to remedy and to prevent the recurrence of the incident of excess emission.
  - vi. The steps that were taken to limit the excess emission.
  - vii. If the owner claims that the excess emission was due to malfunction, documentation to support this claim. 567 IAC 24.1(1)-567 IAC 24.1(4)
- 3. Emergency Defense for Excess Emissions. For the purposes of this permit, an "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include non-compliance, to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation or operator error. An emergency constitutes an affirmative defense to an action brought for non-compliance with technology based limitations if it can be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that:
  - a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
  - b. The facility at the time was being properly operated;
  - c. During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements of the permit; and
  - d. The permittee submitted notice of the emergency to the director by certified mail within two working days of the time when the emissions limitations were exceeded due to the emergency. This notice fulfills the requirement of paragraph 22.108(5)"b." See G15. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.

In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof. This provision is in addition to any emergency or upset provision contained in any applicable requirement. 567 IAC 22.108(16)

#### G15. Permit Deviation Reporting Requirements

A deviation is any failure to meet a term, condition or applicable requirement in the permit. Reporting requirements for deviations that result in a hazardous release or excess emissions have been indicated above (see G13 and G14). Unless more frequent deviation reporting is specified in the permit, any other deviation shall be documented in the semi-annual monitoring report and the annual compliance certification (see G4 and G5). 567 IAC 22.108(5)"b"

# G16. Notification Requirements for Sources That Become Subject to NSPS and NESHAP Regulations

During the term of this permit, the permittee must notify the department of any source that becomes subject to a standard or other requirement under 567-subrule 23.1(2) (standards of performance of new stationary sources) or section 111 of the Act; or 567-subrule 23.1(3) (emissions standards for hazardous air pollutants), 567-subrule 23.1(4) (emission standards for hazardous air pollutants for source categories) or section 112 of the Act. This notification shall be submitted in writing to the department pursuant to the notification requirements in 40 CFR Section 60.7, 40 CFR Section 61.07, and/or 40 CFR Section 63.9. 567 IAC 23.1(2), 567 IAC 23.1(3), 567 IAC 23.1(4)

# G17. Requirements for Making Changes to Emission Sources That Do Not Require Title V Permit Modification

1. Off Permit Changes to a Source. Pursuant to section 502(b)(10) of the CAAA, the permittee may make changes to this installation/facility without revising this permit if:

[JAK] 25 12-TV-006R1, 3/2/17

- a. The changes are not major modifications under any provision of any program required by section 110 of the Act, modifications under section 111 of the act, modifications under section 112 of the act, or major modifications as defined in 567 IAC Chapter 22.
- b. The changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions);
- c. The changes are not modifications under any provisions of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or as total emissions);
- d. The changes are not subject to any requirement under Title IV of the Act (revisions affecting Title IV permitting are addressed in rules 567—22.140(455B) through 567 22.144(455B));
- e. The changes comply with all applicable requirements.
- f. For each such change, the permitted source provides to the department and the administrator by certified mail, at least 30 days in advance of the proposed change, a written notification, including the following, which must be attached to the permit by the source, the department and the administrator:
  - i. A brief description of the change within the permitted facility,
  - ii. The date on which the change will occur,
  - iii. Any change in emission as a result of that change,
  - iv. The pollutants emitted subject to the emissions trade
  - v. If the emissions trading provisions of the state implementation plan are invoked, then Title V permit requirements with which the source shall comply; a description of how the emissions increases and decreases will comply with the terms and conditions of the Title V permit.
  - vi. A description of the trading of emissions increases and decreases for the purpose of complying with a federally enforceable emissions cap as specified in and in compliance with the Title V permit; and
  - vii. Any permit term or condition no longer applicable as a result of the change. 567 IAC 22.110(1)
- 2. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements. 567 IAC 22.110(2)
- 3. Notwithstanding any other part of this rule, the director may, upon review of a notice, require a stationary source to apply for a Title V permit if the change does not meet the requirements of subrule 22.110(1). 567 IAC 22.110(3)
- 4. The permit shield provided in subrule 22.108(18) shall not apply to any change made pursuant to this rule. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the state implementation plan authorizing the emissions trade. 567 IAC 22.110(4)
- 5. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes, for changes that are provided for in this permit. *567 IAC 22.108(11)*

# G18. Duty to Modify a Title V Permit

- 1. Administrative Amendment.
  - a. An administrative permit amendment is a permit revision that does any of the following:
    - i. Correct typographical errors
    - ii. Identify a change in the name, address, or telephone number of any person identified in the permit, or provides a similar minor administrative change at the source;
    - iii. Require more frequent monitoring or reporting by the permittee; or
    - iv. Allow for a change in ownership or operational control of a source where the director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the director.
  - b. The permittee may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request. The request shall be submitted to the director.

[JAK] 26 12-TV-006R1, 3/2/17

- c. Administrative amendments to portions of permits containing provisions pursuant to Title IV of the Act shall be governed by regulations promulgated by the administrator under Title IV of the Act.
- 2. Minor Title V Permit Modification.
  - a. Minor Title V permit modification procedures may be used only for those permit modifications that satisfy all of the following:
    - i. Do not violate any applicable requirement;
    - ii. Do not involve significant changes to existing monitoring, reporting or recordkeeping requirements in the Title V permit;
    - iii. Do not require or change a case by case determination of an emission limitation or other standard, or an increment analysis;
    - iv. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include any federally enforceable emissions caps which the source would assume to avoid classification as a modification under any provision under Title I of the Act; and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act;
    - v. Are not modifications under any provision of Title I of the Act; and
    - vi. Are not required to be processed as significant modification under rule 567 22.113(455B).
  - b. An application for minor permit revision shall be on the minor Title V modification application form and shall include at least the following:
    - i. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
    - ii. The permittee's suggested draft permit;
    - iii. Certification by a responsible official, pursuant to 567 IAC 22.107(4), that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and
    - iv. Completed forms to enable the department to notify the administrator and the affected states as required by 567 IAC 22.107(7).
  - c. The permittee may make the change proposed in its minor permit modification application immediately after it files the application. After the permittee makes this change and until the director takes any of the actions specified in 567 IAC 22.112(4) "a" to "c", the permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time, the permittee need not comply with the existing permit terms and conditions it seeks to modify. However, if the permittee fails to comply with its proposed permit terms and conditions during this time period, the existing permit terms and conditions it seeks to modify may be enforced against the facility.
- 3. Significant Title V Permit Modification.
- Significant Title V modification procedures shall be used for applications requesting Title V permit modifications that do not qualify as minor Title V modifications or as administrative amendments. These include but are not limited to all significant changes in monitoring permit terms, every relaxation of reporting or recordkeeping permit terms, and any change in the method of measuring compliance with existing requirements. Significant Title V modifications shall meet all requirements of 567 IAC Chapter 22, including those for applications, public participation, review by affected states, and review by the administrator, as those requirements that apply to Title V issuance and renewal.

The permittee shall submit an application for a significant permit modification not later than three months after commencing operation of the changed source unless the existing Title V permit would prohibit such construction or change in operation, in which event the operation of the changed source may not commence until the department revises the permit. 567 IAC 22.111-567 IAC 22.113

# **G19. Duty to Obtain Construction Permits**

Unless exempted in 567 IAC 22.1(2) or to meet the parameters established in 567 IAC 22.1(1)"c", the permittee shall not construct, install, reconstruct or alter any equipment, control equipment or anaerobic lagoon without first obtaining a construction permit, or conditional permit, or permit pursuant to rule 567 IAC 22.8, or permits required pursuant to rules 567 IAC 22.4, 567 IAC 22.5, 567 IAC 31.3, and 567 IAC

[JAK] 27 12-TV-006R1, 3/2/17

33.3 as required in 567 IAC 22.1(1). A permit shall be obtained prior to the initiation of construction, installation or alteration of any portion of the stationary source or anaerobic lagoon. 567 IAC 22.1(1)

#### G20. Asbestos

The permittee shall comply with 567 IAC 23.1(3)"a", and 567 IAC 23.2(3)"g" when activities involve asbestos mills, surfacing of roadways, manufacturing operations, fabricating, insulating, waste disposal, spraying applications, demolition and renovation operations (567 IAC 23.1(3)"a"); training fires and controlled burning of a demolished building (567 IAC 23.2).

# **G21. Open Burning**

The permittee is prohibited from conducting open burning, except as provided in 567 IAC 23.2. 567 IAC 23.2 except 23.2(3)"j"; 567 IAC 23.2(3)"j" - State Only

#### G22. Acid Rain (Title IV) Emissions Allowances

The permittee shall not exceed any allowances that it holds under Title IV of the Act or the regulations promulgated there under. Annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide held by the owners and operators of the unit or the designated representative of the owners and operators is prohibited. Exceedences of applicable emission rates are prohibited. "Held" in this context refers to both those allowances assigned to the owners and operators by USEPA, and those allowances supplementally acquired by the owners and operators. The use of any allowance prior to the year for which it was allocated is prohibited. Contravention of any other provision of the permit is prohibited. 567 IAC 22.108(7)

# G23. Stratospheric Ozone and Climate Protection (Title VI) Requirements

- 1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
  - a. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to § 82.106.
  - b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.
  - c. The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.
  - d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.
- 2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:
  - a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.
  - b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
  - c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.
  - d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with reporting and recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" as defined at § 82.152)
  - e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.
  - f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.
- 3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
- 4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not

[JAK] 28 12-TV-006R1, 3/2/17

include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant,

5. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. 40 CFR part 82

# **G24. Permit Reopening**

- 1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. 567 IAC 22.108(9)"c"
- 2. Additional applicable requirements under the Act become applicable to a major part 70 source with a remaining permit term of 3 or more years. Revisions shall be made as expeditiously as practicable, but not later than 18 months after the promulgation of such standards and regulations.
  - a. Reopening and revision on this ground is <u>not</u> required if the permit has a remaining term of less than three years;
  - b. Reopening and revision on this ground is <u>not</u> required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii) as amended to May 15, 2001.
  - c. Reopening and revision on this ground is <u>not</u> required if the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. 567 IAC 22.108(17)"a", 567 IAC 22.108(17)"b"
- 3. A permit shall be reopened and revised under any of the following circumstances:
  - a. The department receives notice that the administrator has granted a petition for disapproval of a permit pursuant to 40 CFR 70.8(d) as amended to July 21, 1992, provided that the reopening may be stayed pending judicial review of that determination;
  - b. The department or the administrator determines that the Title V permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Title V permit;
  - c. Additional applicable requirements under the Act become applicable to a Title V source, provided that the reopening on this ground is not required if the permit has a remaining term of less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. Such a reopening shall be complete not later than 18 months after promulgation of the applicable requirement.
  - d. Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the acid rain program. Upon approval by the administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.
  - e. The department or the administrator determines that the permit must be revised or revoked to ensure compliance by the source with the applicable requirements. 567 IAC 22.114(1)
- 4. Proceedings to reopen and reissue a Title V permit shall follow the procedures applicable to initial permit issuance and shall effect only those parts of the permit for which cause to reopen exists. 567 IAC 22.114(2)
- 5. A notice of intent shall be provided to the Title V source at least 30 days in advance of the date the permit is to be reopened, except that the director may provide a shorter time period in the case of an emergency. 567 IAC 22.114(3)

### **G25. Permit Shield**

- 1. The director may expressly include in a Title V permit a provision stating that compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that:
  - a. Such applicable requirements are included and are specifically identified in the permit; or

[JAK] 29 12-TV-006R1, 3/2/17

- b. The director, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.
- 2. A Title V permit that does not expressly state that a permit shield exists shall be presumed not to provide such a shield.
- 3. A permit shield shall not alter or affect the following:
  - a. The provisions of Section 303 of the Act (emergency orders), including the authority of the administrator under that section:
  - b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
  - c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the Act;
  - d. The ability of the department or the administrator to obtain information from the facility pursuant
  - to Section 114 of the Act. 567 IAC 22.108 (18)

# G26. Severability

The provisions of this permit are severable and if any provision or application of any provision is found to be invalid by this department or a court of law, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected by such finding. 567 IAC 22.108 (8)

# **G27. Property Rights**

The permit does not convey any property rights of any sort, or any exclusive privilege. 567 IAC 22.108 (9)"d"

### G28. Transferability

This permit is not transferable from one source to another. If title to the facility or any part of it is transferred, an administrative amendment to the permit must be sought consistent with the requirements of 567 IAC 22.111(1). 567 IAC 22.111 (1)"d"

#### G29. Disclaimer

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. 567 IAC 22.3(3)"c"

# G30. Notification and Reporting Requirements for Stack Tests or Monitor Certification

The permittee shall notify the department's stack test contact in writing not less than 30 days before a required test or performance evaluation of a continuous emission monitor is performed to determine compliance with applicable requirements of 567 - Chapter 23 or a permit condition. Such notice shall include the time, the place, the name of the person who will conduct the test and other information as required by the department. If the owner or operator does not provide timely notice to the department, the department shall not consider the test results or performance evaluation results to be a valid demonstration of compliance with applicable rules or permit conditions. Upon written request, the department may allow a notification period of less than 30 days. At the department's request, a pretest meeting shall be held not later than 15 days prior to conducting the compliance demonstration. A testing protocol shall be submitted to the department no later than 15 days before the owner or operator conducts the compliance demonstration. A representative of the department shall be permitted to witness the tests. Results of the tests shall be submitted in writing to the department's stack test contact in the form of a comprehensive report within six weeks of the completion of the testing. Compliance tests conducted pursuant to this permit shall be conducted with the source operating in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which the source shall be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the equipment manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the department that the source has been physically altered so that capacity cannot be exceeded, or the department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the department to determine whether such source is in compliance. Stack test notifications, reports and correspondence shall be sent to:

Stack Test Review Coordinator Iowa DNR, Air Quality Bureau 7900 Hickman Road, Suite #1 Windsor Heights, IA 50324 (515) 725-9545

Within Polk and Linn Counties, stack test notifications, reports and correspondence shall also be directed to the supervisor of the respective county air pollution program. 567 IAC 25.1(7)"a". 567 IAC 25.1(9)

# G31. Prevention of Air Pollution Emergency Episodes

The permittee shall comply with the provisions of 567 IAC Chapter 26 in the prevention of excessive build-up of air contaminants during air pollution episodes, thereby preventing the occurrence of an emergency due to the effects of these contaminants on the health of persons. 567 IAC 26.1(1)

### **G32. Contacts List**

The current address and phone number for reports and notifications to the EPA administrator is:

Chief of Air Permits U.S. EPA Region 7 Air Permits and Compliance Branch 11201 Renner Blvd. Lenexa, KS 66219 (913) 551-7020

The current address and phone number for reports and notifications to the department or the Director is:

Chief, Air Quality Bureau lowa Department of Natural Resources 7900 Hickman Road, Suite #1 Windsor Heights, IA 50324 (515) 725-9500

Reports or notifications to the DNR Field Offices or local programs shall be directed to the supervisor at the appropriate field office or local program. Current addresses and phone numbers are:

#### Field Office 1

909 West Main – Suite 4 Manchester, IA 52057 (563) 927-2640

# Field Office 3

1900 N. Grand Ave. Spencer, IA 51301 (712) 262-4177

# Field Office 5

7900 Hickman Road, Suite #200 Windsor Heights, IA 50324 (515) 725-0268

#### Polk County Public Works Dept.

Air Quality Division 5885 NE 14th St. Des Moines, IA 50313 (515) 286-3351

### Field Office 2

2300-15th St., SW Mason City, IA 50401 (641) 424-4073

# Field Office 4

1401 Sunnyside Lane Atlantic, IA 50022 (712) 243-1934

#### Field Office 6

1023 West Madison Street Washington, IA 52353-1623 (319) 653-2135

#### **Linn County Public Health**

Air & Water Quality Branch 1240 26<sup>th</sup> Avenue Court, Suite 2600 Cedar Rapids, IA 52405 (319) 892-6000

# Appendix A:

# **Applicable Federal Requirements**

### **New Source Performance Standards:**

# **40 CFR Part 60 Subpart A** – General Provisions

A link to the current final rule can be found below:

http://www.ecfr.gov/cgi-bin/text-

idx?SID=fbc3fda0c6cea5569e875b606253489e&mc=true&node=sp40.7.60.a&rgn=div6

**40 CFR Part 60 Subpart WWW** – Standards of Performance for Municipal Solid Waste Landfills A link to the current final rule can be found below:

http://www.ecfr.gov/cgi-bin/text-

idx?SID=fbc3fda0c6cea5569e875b606253489e&mc=true&node=sp40.8.60.www&rgn=div6

**40 CFR Part 60 Subpart IIII** – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

A link to the current final rule can be found below:

http://www.ecfr.gov/cgi-bin/text-

idx?SID=fbc3fda0c6cea5569e875b606253489e&mc=true&node=sp40.8.60.iiii&rgn=div6

**40 CFR Part 60 Subpart JJJJ** – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

A link to the current final rule can be found below:

http://www.ecfr.gov/cgi-bin/text-

idx?SID=fbc3fda0c6cea5569e875b606253489e&mc=true&node=sp40.8.60.jjjj&rgn=div6

**Note:** A list of all promulgated NSPS rules, EPA Region 7 staff contact information (for questions pertaining to the rule), compliance assistance links, and a link to each NSPS can be found below:

https://www.epa.gov/caa-permitting/new-source-performance-standards-region-7

#### **National Emission Standards for Hazardous Air Pollutants:**

### **40 CFR Part 63 Subpart A** – General Provisions

A link to the current final rule can be found below:

http://www.ecfr.gov/cgi-bin/text-

idx?SID=fbc3fda0c6cea5569e875b606253489e&mc=true&node=sp40.11.63.a&rgn=div6

**40 CFR Part 63 Subpart AAAA** – National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills

A link to the current final rule can be found below:

http://www.ecfr.gov/cgi-bin/text-

idx?SID=fbc3fda0c6cea5569e875b606253489e&mc=true&node=sp40.14.63.aaaa&rgn=div6

**40 CFR Part 63 Subpart ZZZZ** – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

A link to the current final rule can be found below:

http://www.ecfr.gov/cgi-bin/text-

idx?SID=fbc3fda0c6cea5569e875b606253489e&mc=true&node=sp40.15.63.zzzz&rgn=div6

**Note:** A list of all promulgated MACT rules, EPA Region 7 staff contact information (for questions pertaining to the rule), compliance assistance links, and a link to each NESHAP can be found below:

https://www.epa.gov/caa-permitting/maximum-achievable-control-technology-standards-region-7

[JAK] 32 12-TV-006R1, 3/2/17

# Appendix B:

# Attachment A to the Landfill Gas Engine Permit (LCPH ATI 6790 / PTO 6667)

# Establishing Future Formaldehyde Emission Factors for Landfill Gas Engine Compliance Demonstration

The following procedure has been established to update the formaldehyde emission factor periodically to enforce the synthetic minor emission limit on the landfill gas engine (EP-02).

The following items are issued as supporting documentation to clarify how permit conditions pursuant to the operation and compliance of this facility may be updated following subsequent compliance demonstration.

# A1. Landfill Gas Engine Formaldehyde Emission Limits

The following emission limits for formaldehyde emissions from the Landfill Gas Engine (EP-02) using landfill gas as fuel.

Pollutant	Emission Limit	Averaging Time	Reference/Basis	
Formaldehyde	9.38 tons per year	12-month rolling sum	Synthetic minor status	

# A2. Formaldehyde Emission Factor Calculations

The Department will use the results of the most recent formaldehyde stack test to generate a conservative emission factor for the estimation of formaldehyde generation from the landfill gas engine. This emission factor will utilize the 95% Confidence Interval of the test, as determined by the following equations:

A. Equation (1) shall be used to determine the average formaldehyde concentration:

Equation (1): 
$$[\bar{C}] = \frac{\sum_{i=1}^{N} [C_i]}{N}$$

Where,

 $[\bar{C}]$  is the average formaldehyde concentration (in ppm<sub>vd</sub>);

 $[C_i]$  is the formaldehyde concentration (in ppm<sub>vd</sub>) of stack test run "i;" and

N is the total number of stack test runs performed.

B. Equation (2) shall be used to determine the standard deviation of the formaldehyde concentrations from all stack test runs, using the N-1 method:

Equation (2): 
$$\sigma = \sqrt{\frac{\sum_{i=1}^{N} ([C_i] - [\bar{C}])^2}{N-1}}$$

Where.

 $\sigma$  is the standard deviation of the formaldehyde stack test results (in ppm<sub>vd</sub>).

C. Equation (3) shall be used to determine the 95% Confidence Interval of the formaldehyde concentration:

Equation (3): 
$$[C]_{95} = [\bar{C}] + \frac{Z * \sigma}{\sqrt{N}}$$

Where

 $[C]_{95}$  is the 95% Confidence Interval of the formaldehyde concentration (in ppm<sub>vd</sub>); and

[JAK] 33 12-TV-006R1, 3/2/17

Z is the critical value of the t-distribution ( $t_{95}$ ), as defined by the degrees of freedom (where "degrees of freedom" is defined as N-1). (Note that a stack test containing 3 test runs has a critical value of 2.92.)

D. Equation (4) shall be used to determine the heat input value from the stack test:

Equation (4): 
$$\overline{H} = \overline{M} * \overline{Q} * \frac{1,011 Btu}{ft^3}$$

Where,

 $\overline{H}$  is the average heat input (in Btu per minute);

 $\overline{M}$  is the average methane content (in decimals) from the stack tests;

 $\bar{Q}$  is the average landfill gas flow rate (in dscfm) from the stack tests; and 1,011 Btu/ft<sup>3</sup> is the heat content of methane.

E. Equation (5) shall be used to determine the formaldehyde emission factor to be used in establishing the 12-month rolling throughput limitation at the facility:

$$Equation~(5):~EF = [C]_{95}(ppm_{vd}) * \frac{1}{10^6} * \frac{30.03~lb}{lb-mol} * \frac{lb-mol}{358.3~ft^3} * \frac{\bar{F}~ft^3}{min} * \frac{min}{\bar{H}~Btu} * \frac{1,000,000~Btu}{MMBtu}$$

Where,

EF is the formaldehyde emission factor (in lb/MMBtu); and  $\overline{F}$  is the average exhaust rate (in dscfm).

# A3. Establishing Future Emission Factor and Throughput Limits

The Department shall include the updated formaldehyde emission factor in the acceptance letter of future compliance demonstrations. Copies of these letters shall be kept alongside PTO 6667 by Cedar Rapids / Linn County Solid Waste Agency to demonstrate compliance with the updated emission factor.

The Cedar Rapids / Linn County Solid Waste Agency shall continue to use the established emission factor until the Department has issued the updated value. Beginning the 1<sup>st</sup> day of the next calendar month after the facility receives the updated factor, the Cedar Rapids / Linn County Solid Waste Agency shall use the updated value.

[JAK] 34 12-TV-006R1, 3/2/17